



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,483	11/19/2003	Tomohiro Yamamura	61355-049	9179

7590 08/23/2006
McDERMOTT, WILL & EMERY
600 13th Street, N.W.
Washington, DC 20005-3096

EXAMINER

BROADHEAD, BRIAN J

ART UNIT	PAPER NUMBER
----------	--------------

3661

DATE MAILED: 08/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/715,483

Applicant(s)

YAMAMURA ET AL.

Examiner

Brian J. Broadhead

Art Unit

3661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19, 21-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21-24 is/are allowed.
- 6) ☒ Claim(s) 1-6 and 13-15 is/are rejected.
- 7) ☒ Claim(s) 7-12 and 16-19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3-6-06</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 1, 2, 4, 5, 6, 13, 14, and 15 are rejected under 35 U.S.C. 102(a) as being anticipated by Mattes et al., DE 10118707, which corresponds to US 2004/0153217.

3. Mattes et al. disclose a state recognition device that detects a vehicle condition and a traveling environment of a subject vehicle in paragraph 32; a future state prediction device that calculates current degree of proximity to a preceding vehicle and/or an extent of influence on the subject vehicle due to future changes in surrounding environment to predict future driving conditions, based on detection results of the state recognition device in paragraph 32; and a risk potential calculating device that calculates risk potential around the subject vehicle based on the future driving conditions predicted by the future state prediction device and a driver's intentions in paragraph 32; a reaction force calculating device that calculates an operation reaction force to be generated in a vehicle operating unit according to the risk potential calculated by the risk potential calculating device in paragraph 33; and a reaction force generating device that generates the operation reaction force calculated by the reaction force calculating device in the vehicle operating unit in paragraph 33; the risk potential calculating device estimates the driver's intentions from acceleration and deceleration of

the subject vehicle and preceding vehicle to calculate the risk potential in paragraph 32; and a warning system that outputs a warning according to the risk potential calculated by the risk potential calculating device in paragraph 33; and the future driving conditions is predicted by calculating the extent of influence on the subject vehicle due to future changes in surrounding environment in paragraph 33.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mattes et al., DE 10118707, in view of Fujita, 5485892.

6. Mattes et al. disclose the limitations as set forth above. They do not disclose the vehicle operating unit is an accelerator pedal and the reaction force generating device calculates reaction force to be generated in the accelerator pedal. Fujita teaches the vehicle operating unit is an accelerator pedal and the reaction force generating device calculates reaction force to be generated in the accelerator pedal on lines 30-37, on column 9. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the teaching of Fujita in the invention of Mattes et al. because such modification would help to prevent collisions.

Allowable Subject Matter

7. Claims 21-24 are allowed.

8. Claims 7-12 and 16-19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter: The prior art does not disclose using the reciprocal of time to impact or reciprocal of the time headway along with a derivative of one of the terms to calculate risk potential; and that a future state prediction device configured to predict future driving conditions by calculating an extent of influence on the subject vehicle due to future changes in the surrounding environment, where the calculating an extent of influence on the subject vehicle due to future changes in the surrounding environment is disclosed in the specification as being time headway.

Response to Arguments

10. Applicant's arguments filed 6-7-06 have been fully considered but they are not persuasive. Applicant argues that Mattes doesn't use driver's intentions in the risk potential calculation. However, Mattes uses the acceleration setpoint as a determining factor when deciding whether or not the system should react. This acceleration setpoint can be set by the driver's use of the accelerator. The rejection is maintained.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

Art Unit: 3661

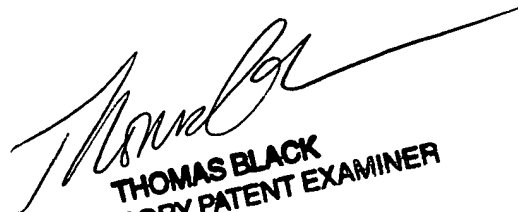
TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian J. Broadhead whose telephone number is 571-272-6957. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on 571-272-6956. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


BJB


THOMAS BLACK
SUPERVISORY PATENT EXAMINER